

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-4 & 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mine et al, US Patent 6,588,947 B2, in view of Liu, US Patent 5,356,311, and further in view of applicants admitted prior art of the US publication number 2005/0058282 A1 (hereinafter referred to as AAPA; para 0004-0005).

4. Re Claim 1, Mine et al discloses an audio signal adaptor having an optical conversion function (col. 1, lines 19-36), but fails to disclose a plurality of adaptors (Liu, fig. 4: 7; col. 2, lines 56-68), located one a side of the audio signal adaptor (Liu, fig. 4: 7; col. 2, lines 56-68); a plurality of spaces, disposed on another side of the audio signal adaptor apart from the adaptors of the audio signal adaptor for fitting telephony signal terminals (Liu, fig. 4: 7; col. 2, lines 56-68) and a connector having a button with a

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plurality of grooves for fitting telephony signal terminals, located at a rear side of the said audio signal adaptor (Liu, col. 2, lines 56-68). Mine et al and Liu fail to disclose a plurality of spaces receive one or more optical conversion modules (AAPA, para 0004), said optical conversion module comprises an optical conversion element facing said adaptor to form an optical conversion loop with said adaptor while fitting a circular type 1 plug into said adaptor (AAPA, para 0004).

5. Taking the combined teachings of Mine et al, Liu and AAPA as a whole, one skilled in the art would have found it obvious to modify the an audio signal adaptor having an optical conversion function (col. 1, lines 19-36) of Mine et al with a plurality of adaptors (Liu, fig. 4: 7; col. 2, lines 56-68), located one a side of the audio signal adaptor (Liu, fig. 4: 7; col. 2, lines 56-68); a plurality of spaces, disposed on another side of the audio signal adaptor apart from the adaptors of the audio signal adaptor for fitting telephony signal terminals (Liu, fig. 4: 7; col. 2, lines 56-68) and a connector having a button with a plurality of grooves for fitting telephony signal terminals, located at a rear side of the said audio signal adaptor (Liu, col. 2, lines 56-68) of Liu with a plurality of spaces receive one or more optical conversion modules (AAPA, para 0004), said optical conversion module comprises an optical conversion element facing said adaptor to form an optical conversion loop with said adaptor while fitting a circular type 1 plug into said adaptor (AAPA, para 0004) as taught in AAPA to miniaturize the audio signal adaptor and enhance the quality of the adaptor.
6. Re Claim 2, the combined teachings of Mine et al, Liu and AAPA disclose the audio signal adaptor according to claim 1, wherein said optical conversion module

comprises a base having a positioning hole (Mine et al. col. 1, lines 47-61), and on a side apart from said positioning hole has a space for receiving said optical conversion element (Mine et al. col. 1, lines 47-61).

7. Re Claim 3, the combined teachings of Mine et al, Liu and AAPA disclose the audio signal adaptor according to claim 2, wherein said space of said base of said optical conversion module comprises protruded buckles on two sidewalls for supporting on a surface of said optical conversion element (Mine et al. fig. 7: 19; col. 2, lines 53-67).

8. Re Claim 4, the combined teachings of Mine et al, Liu and AAPA disclose the audio signal adaptor according to claim 1, wherein said button of said connector comprises a base for penetrating and fitting a plurality of optical signal terminals (Mine et al. col. 1, lines 37-46), said optical conversion element comprises a plurality of signal terminals (Mine et al. col. 1, lines 37-46), and said signal terminals of said optical conversion element is for having electrical contact with said optical signal terminals of said connector (Mine et al. col. 1, lines 37-46).

9. Re Claim 7, the combined teachings of Mine et al, Liu and AAPA disclose the audio signal adaptor according to claim 1, wherein said adaptor of said audio signal adaptor is for inserting an audio plug (Mine et al. col. 1, lines 17-35).

10. Re Claim 8, the combined teachings of Mine et al, Liu and AAPA disclose the audio signal adaptor according to claim 1, wherein said adaptor of said audio signal adaptor is for inserting a circular type 1 plug (AAPA, para 0004).

11. Re Claim 9, the combined teachings of Mine et al, Liu and AAPA disclose the audio signal adaptor according to claim 1, wherein said audio signal adaptor is covered by a case (*Mine et al, fig. 1: 11*).

12. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mine et al, US Patent 6,588,947 B2, Liu, US Patent 5,356,311, and applicants admitted prior art of the US publication number 2005/0058282 A1 (hereinafter referred to as AAPA; para 0004-0005) as applied to claim 1, in view of Briones et al, US Patent 4,500,159.

13. Re Claim 6, Mine et al, Liu and AAPA disclose the audio signal adaptor according to claim 1, but fail to disclose wherein a button of a connector having a buckling portion extending formed at the flange of the two sides and the two sides of said base of said audio signal adaptor have buckles for buckling to said buckling portion of connector for positioning. However, Briones et al does (*col. 3, lines 11-17*).

Taking the combined teachings of Mine et al, Liu, AAPA and Briones et al as a whole, one skilled in the art would have found it obvious to modify the audio signal adaptor of Mine et al, Liu and AAPA with a button of a connector having a buckling portion extending formed at the flange of the two sides and the two sides of said base of said audio signal adaptor have buckles for buckling to said buckling portion of connector for positioning as taught in Briones et al (*col. 3, lines 11-17*) to secure the optical conversion module.

Allowable Subject Matter

1. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
2. The following is a statement of reasons for the indication of allowable subject matter for claim 5: The prior art does not teach or moderately suggest the following limitations:

An optical signal terminals comprises a bent supporting portion at a side, and said optical conversion element comprises a bent contact portion formed at each distal end of said signal terminals, said bent supporting portion of said optical signal terminals is for positioning said contact portion of said signal terminals.

Limitations such as these may be useful in combination with other limitations of claim 1.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GEORGE C. MONIKANG whose telephone number is (571)270-1190. The examiner can normally be reached on M-F. alt Fri. Off 7:30am-5:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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